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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/627,694 07/28/00 HOUGHTON

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HM22/0516

EXAMINER

HARRIS, A

ART UNIT

PAPER NUMBER

1642  
DATE MAILED:

05/16/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/627,694

Applicant(s)

Houghton et al.

Examiner  
Alana M. Harris, Ph. D.

Art Unit  
1642



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on April 4, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above, claim(s) 1-28 and 34-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirements.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 20) ☐ Other:

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## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election with traverse of Group IV (claims 29-33) in Paper No. 6 (filed April 4, 2001) is acknowledged. The traversal is on the grounds "...that the claims of groups IV, V, VI and VII should not be characterized as separate invention, but should rather be the subject of a species election..." and cite the MPEP in support of arguments encompassing the rejoinder of several inventions restricted by the Examiner. This is not found persuasive.

The argument that a search encompassing Groups IV-VII as a species election is not found persuasive for the reasons set forth in the restriction requirement (Paper No. 5, mailed March 1, 2001). Furthermore, each differentiation antigen is patentably distinct. Classification of subject matter is merely one indication of the burdensome nature of the search involved. The literature search, particularly relevant in this art, is not co-extensive and is much more important in evaluating the burden of search. Clearly different searches and issues are involved in the examination of each group. For these reasons the restriction requirement is deemed to be proper and is adhered to.

The requirement is therefore made FINAL.

However, the policies set forth in the Commissioner's Notice of February 28, 1996 published on March 26, 1996 at 1184 O.G. 86 will be followed. Method claims limited to the

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scope of the allowable product claims will be rejoined and examined at the time the product claims are indicated as being allowable.

2. Claims 1-40 are pending.

Claims 1-28 and 34-40, drawn to non-elected inventions are withdrawn from examination.

Claims 29-33 are examined on the merits.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title should reflect that the claimed invention is drawn to a cell line expressing a differentiation antigen.

***Priority***

4. The instant application is granted the effective filing date of December 10, 1997 (PCT/US97/22669). The provisional documents 60/036,419 (filing date February 18, 1997), 60/032,535 (filing dated December 10, 1996) and 60/180,651 (filing date January 26, 2000) from which Applicant requests benefit were unavailable. Once these documents become available to the Examiner they will be reviewed and the priority date of the instant application will be reestablished if warranted.

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***Claim Rejections - 35 U.S.C. § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 29-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claims 29 and 31-33 are vague and indefinite in the recitation “differentiation antigen”. What properties are bestowed upon the antigen with the use of the term “differentiation”? The metes and bounds of the claimed invention cannot be determined.

***Claim Rejections - 35 U.S.C. § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naftzger et al. (Proc. Natl. Acad. Sci. USA, 93:14809-14814, December 1996), in view of Ausubel et al. (Current Protocols In Molecular Biology, Volume 2, Section 2, Unit 16.8-16.11: pages 16.9.1-

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16.11.7, 1990/ Referenced on the IDS). Naftzger teaches a mouse differentiation antigen, gp75 that is expressed by a baculovirus vector contained within insect Sf9 cells (see PNAS article, page 14810, column 2, Results section "gp75 Expressed..."). The Naftzger document <sup>does not</sup> teach a non-human cell line, such as an insect cell line that expresses a human gp75 differentiation antigen derived from human melanocytes.

However, Ausubel teaches the preparation of insect cell cultures and expression of proteins, such as a human gp75 differentiation antigen in insect cells using baculoviral expression systems. It would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made to use the expression system, culture methods and harvesting techniques disclosed by Ausubel et al. for the successful expression of the human gp75 differentiation antigen cDNA derived from human melanocytes contained within an expression vector to promote expression of the said antigen in insect cells. One of ordinary skill in the art would have been motivated to do so with a reasonable expectation of success by teachings in Ausubel of the great likelihood of obtaining biologically active products from such methods and host cells due to the baculovirus' efficient promoter strategy and the high infection rate of insect host cells. Furthermore, one of ordinary skill in the art would have been motivated to do so with a reasonable expectation of success because it is art known that sources of altered antigen can induce effective immune responses, such as tumor rejection.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alana M. Harris whose telephone number is (703)306-5880. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm, with alternate Fridays off. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa, can be reached on (703)308-4310. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)308-0196.

Alana M. Harris, Ph.D.  
Patent Examiner, Group 1642  
May 15, 2001

  
SHEELA HUFF  
PRIMARY EXAMINER